

2. PINGUIPES CHILENSIS. Val.

Pinguipes Chilensis, Cuv. et Val. Hist. des Poiss. tom. ix. p. 338.

FORM.—More slender and elongated than the last species. Depth nearly six and a half times in the entire length. Head four times and a quarter in the same. Eyes high, a little before the middle, or with the distance in front to the end of the snout not equalling that behind measured to the posterior part of the opercle; their diameter nearly six times in the length of the head; the interval between them nearly two diameters. When the mouth is closed, a vertical from the posterior part of the maxillary forms a tangent to the anterior part of the orbit. Lips not so thick and fleshy as in the *P. fasciatus*; but the teeth almost exactly similar. Tongue much larger, occupying nearly the entire platform of the mouth. Branchial membrane much more deeply notched, the notch reaching as far as the anterior extremity of the interopercle. Preopercle with the ascending margin nearly vertical. Opercle with two small flat spines, the lower one rather more developed than the upper. Scales and lateral line as in the *P. fasciatus*. Pectorals similar. Ventrals attached entirely in front of the pectorals, though not much in advance; fleshy, but perhaps rather less so than in the *P. fasciatus*: in neither species do they pass beyond the pectorals, or indeed reach quite so far. The other fins exactly similar. The dorsal, however, has one spine less, and one soft ray more. The anal, also, has one soft ray more.

B. 6; D. 6/28; A. 1/25; C. 17, &c.; P. 19; V. 1/5.

Length 11 inches.

COLOUR.—(In spirits.) Back and sides deep brown, with the exception of two rows of pale spots along the sides, very faint and ill-defined. Underneath altogether paler. The dorsal and anal appear to have been bluish, with the basal portion of each fin pale, but without any edging of white above. Inside of the ventrals blue; pectorals the same, but paler. The caudal shows some trace of a dark round spot on the base of the upper lobe. Mr. Darwin's notes, with respect to the colour in the living fish, only state "fins dark."

Habitat, Valparaiso, Chile.

This species, which was procured by Mr. Darwin at Valparaiso, is probably the same as the *P. Chilensis* of Valenciennes, obtained by M. Gay on the same coast. But the description in the "Histoire des Poissons" is brief, and notices very little besides the colours, which accord tolerably well. Mention, however, is made of a second spine in the anal fin, which certainly does not exist in the above specimen, though a very careful examination was made in search of it. There is also one soft ray more in this fin, as well as in the dorsal, in the fin-ray formula in that work.

This species is very distinct from the *P. fasciatus* last described, and does

not show so strong a resemblance to the *Labridæ*; but it approaches very closely the *P. Brasilianus*.

PERCOPHIS BRASILIANUS. Cuv.

Percophis Brasilianus, Cuv. et Val. Hist. des Poiss. tom. iii. p. 209. pl. 64.
 ———— Brasilensis, Freycinet, (Voyage) Zoologie, p. 351, pl. 53. fig. 1.

FORM.—Depth and breadth in the region of the pectorals about equal, each being contained ten and a half, or nearly eleven times in the entire length. Head not quite four and a half times in the same. In the upper jaw, three strong, curved, sharp-pointed canine teeth on each side; besides a velutine band extending the whole way, with the outer row longer and more developed than the others: in the lower jaw a velutine band, with long sharp canines, similar to those above, arising amongst them at nearly regular intervals, to the number of ten or eleven on each side; none exactly in front, and not all of the same size, but passing here and there into card. Membranous margin of the preopercle very finely, almost obsoletely denticulated. Branchial membrane with seven rays, the seventh being not much smaller than the sixth.* The whole head covered with scales, including the lower jaw, and the upper half of the maxillary. Lateral line nearly straight, a little above the middle. First dorsal commencing at about one-third of the entire length, excluding caudal; of a triangular form, with its length a little exceeding its height; second spine longest, about equalling the depth of the body. Distance between the two dorsals equalling half the length of the first. Second dorsal with the first ray longest, equalling the longest of the spines in the first dorsal; second and succeeding rays slightly decreasing to the sixth, beyond which they are nearly even, with the exception of the last three or four, which are shorter; all these rays very much branched, with the intervening membrane deeply notched. Anal commencing a little before the end of the first dorsal, and terminating nearly in a line with, but in strictness a very little beyond, the second dorsal; rays and membrane much as in that fin, to which it answers in general height. Distance between the second dorsal and caudal, only one-twenty-eighth of the entire length. Caudal appears obliquely square, the upper rays being slightly longer than the lower, but perhaps worn so. Pectorals one-eighth of the entire length. Ventrals about three-fourths of their length, attached in front of them, as described by Cuvier. In the axillæ of the pectorals is a falcated membranaceous appendage covered with scales (not noticed by Cuvier), a very little less than one-fourth the length of the fins themselves.

B. 7; D. 10—32; A. 41; C. 15. &c.; P. 18; V. 1/5.

Length 21 inches.

COLOUR.—"Above pale, regularly and symmetrically marked with brownish red, the tip of each scale being so coloured. Beneath silvery white. Sides with a faint coppery tinge. Ventral fins yellowish. Pupil of the eye intense black."—D.

* Cuvier in his description, says, of the seventh ray, "fort petit," but it is very obvious in this specimen, and scarcely smaller than the sixth, as above stated.